

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Present Application:

Applicants : Nobuyuki Itoh and W. Michael Kavanaugh
Title : HUMAN FGF-21 GENE AND GENE EXPRESSION PRODUCTS
Docket No. : PP-16758.003 / 201130.408D1
Date : January 29, 2002

Prior Application:

Examiner : Ruixiang Li
Art Unit : 1646
Application No. : 09/715,805

Box Patent Application
Commissioner for Patents
Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

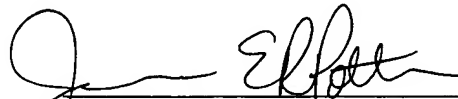
Commissioner for Patents:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicants wish to make known to the Patent and Trademark Office the references set forth on the attached Forms PTO-1449 (copies of the cited references are enclosed). As to any reference supplied, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 C.F.R. § 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



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JEP:sfl

Enclosures:

Postcard
PTO/SB/21
Form PTO-1449 (4 Sheets)
Cited References (38)

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FORM PTO-1449 (REV.7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 201130.408D1/PP-16758.003		EXPRESS MAIL NO. EL755724294US	
INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i>				APPLICANTS Nobuyuki Itoh and W. Michael Kavanaugh			
				FILING DATE January 29, 2002		GROUP ART UNIT Not yet assigned	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AA	5,766,883	6/16/98	Ballance et al.	435	69.7		
AB	5,876,969	2/2/99	Fleer et al.	435	69.7		
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY			TRANSLATION YES NO	
AC	WO 97/24445	07/10/97	WIPO				
AD	WO 97/25345	07/17/97	WIPO				
AE	WO 99/27100	06/03/99	WIPO				
AF	WO 00/54813	09/21/00	WIPO				
OTHER PRIOR ART <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
AG	Baird and Klagsbrun, "The Fibroblast Growth Factor Family," <i>Cancer Cells</i> 3(6): 239-243, June 1991.						
AH	Belluardo et al., "Comparative Localization of Fibroblast Growth Factor Receptor-1, -2, and -3 mRNAs in the Rat Brain: In Situ Hybridization Analysis," <i>The Journal of Comparative Neurology</i> 379: 226-246, 1997.						
AI	Burgess and Maciag, "The Heparin-Binding (Fibroblast) Growth Factor Family of Proteins," <i>Annu. Rev. Biochem.</i> 58: 575-606, 1989.						
AJ	Coulier et al., "The <i>FGF6</i> Gene within the <i>FGF</i> Multigene Family," <i>Annals of the New York Academy of Sciences</i> 638: 53-61, 1991.						
AK	Crossley and Martin, "The mouse <i>Fgf8</i> gene encodes a family of polypeptides and is expressed in regions that direct outgrowth and patterning in the developing embryo," <i>Development</i> 121: 439-451, 1995.						
AL	Genbank Accession No. AB006136, July 20, 2000.						
AM	Genbank Accession No. AV050323, June 22, 1999.						
AN	Dickson et al., "Expression, Processing, and Properties of int-2," <i>Annals of the New York Academy of Sciences</i> 638: 18-26, 1991.						
EXAMINER				DATE CONSIDERED			
* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).							

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BA							
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY			TRANSLATION YES NO	
BB	WO 00/60085	10/12/00	WIPO				
BC	WO 01/07595	02/01/01	WIPO				
BD	WO 01/18209	03/15/01	WIPO				
BE	WO 01/18210	03/15/01	WIPO				
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BF	Gemel et al., "Structure and Sequence of Human <i>FGF8</i> ," <i>Genomics</i> 35: 253-257, 1996.						
BG	Ghosh et al., "Molecular Cloning and Characterization of Human <i>FGF8</i> Alternative Messenger RNA Forms," <i>Cell Growth & Differentiation</i> 7: 1425-1434, October 1996.						
BH	Goldfarb et al., "Expression and Possible Functions of the FGF-5 Gene," <i>Annals of the New York Academy of Sciences</i> 638: 38-52, 1991.						
BI	Gospodarowicz and Cheng, "Heparin Protects Basic and Acidic FGF From Inactivation," <i>Journal of Cellular Physiology</i> 128: 475-484, 1986.						
BJ	Hoshikawa et al., "Structure and Expression of a Novel Fibroblast Growth Factor, FGF-17, Preferentially Expressed in the Embryonic Brain," <i>Biochemical and Biophysical Research Communications</i> 244: 187-191, 1998.						
BK	Lopez et al., "Basic Fibroblast Growth Factor in a Porcine Model of Chronic Myocardial Ischemia: A Comparison of Angiographic, Echocardiographic and Coronary Flow Parameters," <i>The Journal of Pharmacology and Experimental Therapeutics</i> 282(1): 385-390, 1997.						
BL	McWhirter et al., "A novel fibroblast growth factor gene expressed in the developing nervous system is a downstream target of the chimeric homeodomain oncoprotein E2A-Pbx1," <i>Development</i> 124: 3221-3232, 1997.						
BM	Miyake et al., "Structure and Expression of a Novel Member, FGF-16, of the Fibroblast Growth Factor Family," <i>Biochemical and Biophysical Research Communications</i> 243: 148-152, 1998.						
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CA							
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY			TRANSLATION YES NO	
CB							
OTHER PRIOR ART <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
CC	Nishimura et al., "Identification of a Novel FGF, FGF-21, Preferentially Expressed in the Liver," <i>Biochim. Biophys. Acta</i> 1492(1):203-206, June 21, 2000.						
CD	Nishimura et al., "Structure and expression of a novel human FGF, FGF-19, expressed in the fetal brain," <i>Biochimica et Biophysica Acta</i> 1444: 148-151, 1999.						
CE	Ohbayashi et al., "Structure and Expression of the mRNA Encoding a Novel Fibroblast Growth Factor, FGF-18," <i>The Journal of Biological Chemistry</i> 273(29): 18161-18164, July 7, 1998.						
CF	Ohuchi et al., "The mesenchymal factor, FGF10, initiates and maintains the outgrowth of the chick limb bud through interaction with FGF8, an apical ectodermal factor," <i>Development</i> 124: 2235-2244, 1997.						
CG	Ozawa et al., "Expression of the fibroblast growth factor family and their receptor family genes during mouse brain development," <i>Molecular Brain Research</i> 41: 279-288, 1996.						
CH	Reich-Slotky et al., "Chimeric Molecules between Keratinocyte Growth Factor and Basic Fibroblast Growth Factor Define Domains That Confer Receptor Binding Specificities," <i>The Journal of Biological Chemistry</i> 270(50): 29813-29818, December 15, 1995.						
CI	Smallwood et al., "Fibroblast growth factor (FGF) homologous factors: New members of the FGF family implicated in nervous system development," <i>Proceedings of the National Academy of Science USA</i> 93: 9850-9857, September 1996.						
CJ	Tanaka et al., "Cloning and characterization of an androgen-induced growth factor essential for the androgen-dependent growth of mouse mammary carcinoma cells," <i>Proceedings of the National Academy of Science USA</i> 89: 8928-8932, October 1992.						
CK	Tanaka et al., "Human androgen-induced growth factor in prostate and breast cancer cells: its molecular cloning and growth properties," <i>FEBS Letters</i> 363: 226-230, 1995.						
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	DA						
	DB						
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	DF						
	DG						
	DH						
	DI						

FOREIGN PATENT DOCUMENTS

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					YES	NO
	DJ					
	DK					
	DL					
	DM					
	DN					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DO	Wilke et al., "Expression of Fibroblast Growth Factor Receptors (FGFR1, FGFR2, FGFR3) in the Developing Head and Face," <i>Developmental Dynamics</i> 210: 41-52, 1997.
DP	Yamasaki et al., "Structure and Expression of the Rat mRNA Encoding a Novel Member of the Fibroblast Growth Factor Family," <i>The Journal of Biological Chemistry</i> 271(27): 15918-15921, July 5, 1996.
DQ	Yoshida et al., "Characterization of the <i>hst-1</i> Gene and Its Product," <i>Annals of the New York Academy of Sciences</i> 638: 27-37, 1991.

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